

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK**

ON TRACK INNOVATIONS LTD.,)	
an Israeli company)	
)	Case No. 1:12-cv-02224-AJN-JCF
Plaintiff and)	
Counterclaim-Defendant,)	ECF Case
)	
v.)	
)	
T-MOBILE USA, INC.,)	
a Delaware corporation)	
)	
Defendant and)	
Counterclaimant.)	

**ON TRACK INNOVATION'S RESPONSIVE BRIEF IN OPPOSITION TO T-MOBILE'S
OPENING CLAIM CONSTRUCTION BRIEF**

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I. INTRODUCTION

On Track Innovations, Inc. (“OTI”) has offered constructions for the claim terms at issue that are faithful both to the ordinary meaning of the claim terms and the full scope of the claimed invention. T-Mobile USA, Inc.’s (“T-Mobile’s”) construction, in contrast, seeks to improperly limit the claimed invention to specific embodiments, which (presumably) would conveniently avoid infringement for T-Mobile. In particular, T-Mobile strains to (a) limit the claim to cover only a flat piece of stiff material, (b) bootstrap extraneous limitations such as a card reader into the claim, (c) require the antenna to be inside a single housing with the other components, and (d) prohibit data transmission over contacts in contactless mode (i.e., preclude simultaneous contact and contactless modes of operation). These limiting interpretations are not required by the ‘043 Patent, nor are they warranted by applicable principles of claim construction.

II. DISCUSSION OF CLAIM TERMS AT ISSUE

A. “A . . . card having contact and contactless modes of operation”

One of the principal differences between OTI’s and T-Mobile’s construction of the preamble is the threshold question of whether the preamble is a limitation of claim 1. Specifically, T-Mobile argues that the claimed device must be in the form of a card, a term that appears only in the preamble of claim 1, and nowhere in the body of the claim. Contrary to T-Mobile’s assertions, none of the claims, specification, and prosecution history of the ‘043 Patent require limiting claim 1 to a card structure. As set forth below, T-Mobile has not shown that this case fits any exception to the general rule that a preamble is not a limitation of the claim.

In any event, even if the preamble does provide a structural limitation of claim 1, the term “card” cannot be limited to a flat stiff piece of material, but rather should be interpreted broadly to give full effect to the inventors’ intended scope of the invention. (Itay Supp. Dec. ¶¶ 12-18).

I. The preamble is not a limitation

Under Federal Circuit case law, a preamble is generally not considered a limitation of the claim. *Am. Med. Sys., Inc. v. Biolitec, Inc.*, 618 F.3d 1354, 1355 (Fed. Cir. 2010). This is particularly the case “when the claim body describes a structurally complete invention such that deletion of the preamble phrase does not affect the structure or steps of the claimed invention.” *Id.* at 1359, quoting *Catalina Mktg. Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 809 (Fed. Cir. 2002). T-Mobile does not argue that the claim is structurally incomplete without the “card” structure.

The Federal Circuit has articulated a number of exceptions to this rule, namely: (a) “dependence on a particular disputed preamble phrase for antecedent basis may limit claim scope because it indicates a reliance on both the preamble and claim body to define the claimed invention.” *Catalina Mktg.*, 289 F.3d at 809; and (b) “clear reliance on the preamble during prosecution to distinguish the claimed invention from the prior art transforms the preamble into a claim limitation because such reliance indicates use of the preamble to define, in part, the claimed invention.” *Id.* T-Mobile attempts to shoehorn both of these exceptions into this case (T-Mobile Opening Br., pp. 11-14).

- a. The preamble term “card” does
not provide antecedent basis

A plain reading of the claim shows that the word “card” does not appear in the claim body, and therefore, this word in the preamble does not provide antecedent basis for the claim. T-Mobile attempts to argue that since the claim body refers to “said contact and contactless modes,” which terms appear in the preamble, the term “card,” which also appears in the preamble, is therefore limiting. (T-Mobile Opening Br., p. 11). However, this argument is plainly wrong, because the antecedent basis of “said” is “contact and contactless modes,” not “card.”

This theory of antecedent basis by association finds no support in Federal Circuit precedent; the use of “contact and contactless modes” in the claim body and preamble does not mean that “card” is also part of the claim. *Marrin v. Griffin*, 599 F.3d 1290, 1295 (Fed. Cir. 2010) (“the mere fact that a structural term in the preamble is part of the claim does not mean that the preamble’s statement of purpose or other description is also part of the claim”). *Highmark Inc. v. Allcare Health Mgmt. Sys., Inc.*, 687 F.3d 1300 (Fed. Cir. 2012) is inapposite; there, the patentee *expressly admitted* that the preamble was limiting in the Joint Claim Construction statement. *Id.* at 1312. OTI has made no such representation.

On the contrary, the Federal Circuit recently reversed a claim construction limiting claims based on the preamble, despite using the same term in both the preamble and the body of the claim. *Am. Med. Sys.*, 618 F.3d at 1355 (claims were not limited to the preamble phrase “photoselective vaporization of tissue” even though the body of the claim described “a treatment area on *the tissue*,” emphasis added). In *American Medical Systems*, the Court found that the mere mention of ‘tissue’ in both the preamble and the body of the claim did not “provide any context essential to understanding the meaning of ‘the tissue’ in the body of [the] claim.” *Id.* at 1359.

Similarly, the word “card” in the preamble of claim 1 here does not provide context for “contact and contactless modes.” (Apsel Suppl. Dec. ¶8). In fact, the body of the claim makes clear that it is the *semiconductor device* that operates in contact and contactless modes (Col. 13, lines 41-42; Apsel Supp. Rpt. ¶10).

The correct question to ask is whether the preamble is “essential to understand[ing] limitations or terms in the claim body.” *Catalina Mktg.*, 289 F.3d at 810. That is, would the claim body make sense if the preamble word “card” had been replaced by a generic term, e.g., a

“device.” *Id.*, at 809 (“deletion of the disputed phrase from the preamble of Claim 1 does not affect the structural definition or operation of the [claimed] terminal”). Clearly, in this case, such a modified claim would make sense (Apsel Supp. Rpt. ¶9); in fact, the original claims did recite a device, not a card. (Application as filed, p. 25, Yonay Dec.,¹ Ex. 2A). Compare *Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 949 (Fed. Cir. 2006) (an “abutment” was an essential structure because its physical features were described in both the preamble and the body of the claim).

Because the preamble term “card” does not provide antecedent basis for the body of the claim, and does not recite essential structure of the claimed invention, the preamble is not a limitation.

- b. The prosecution history does not evince clear reliance on the preamble to distinguish from the prior art

The second exception to the general rule that preambles are not limiting is “clear reliance on the preamble during prosecution to distinguish the claimed invention from the prior art.” *Catalina Mktg.*, 289 F.3d at 808. T-Mobile seems to argue that the replacement of “device” with “card” during prosecution, and references to “card” during prosecution satisfy this exception, or otherwise demonstrate disavowal of OTI’s broad claim scope. (T-Mobile Opening Brief p. 13). However, the intrinsic record falls far short of the high standard required for reliance on a preamble for patentability, or clear disavowal.

First, T-Mobile refers to the change in the preamble from “device” to “card” (T-Mobile Opening Br. p. 13), but fails to show that this was done to distinguish the claim from the prior art, or even that the change was deliberate. As shown in OTI’s opening brief, it was not. (OTI Opening Br., pp. 9-10).

¹ The Declaration of Guy Yonay (the “Yonay Dec.”) was submitted with OTI’s Opening Brief.

Second, T-Mobile points to use of the term “card” in the prosecution history. (T-Mobile Opening Br., p. 14-15). However, the mere mention of a card in the file history does not show reliance on the preamble as patentably significant. *Intirtool, Ltd. v. Texar Corp.*, 369 F.3d 1289, 1296 (Fed. Cir. 2004) (description of the invention in the file history using the preamble’s language did not limit the claim to the preamble). As T-Mobile points out, the substance of OTI’s distinction of claim 1 over the switching mechanism in the Kreft ‘495 Patent was the “fixedly connected” contacts, not the form of a card. (T-Mobile Opening Brief, p. 7). Not even T-Mobile argues that the term “card” was used (or could have been used) to distinguish from the cited prior art. T-Mobile has therefore failed to show that OTI used the preamble to define the invention or otherwise relied on the preamble for patentability. Compare *In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1347 (Fed. Cir. 2002) (finding clear reliance when the applicant explicitly relied on the preamble to overcome a prior art rejection).

Since there is no clear reliance on the preamble to distinguish its invention over the prior art, the preamble is not limiting.

2. *Even if the preamble is a limitation, it should be construed broadly to read on a device*

Even if the court finds that the preamble is a limitation, the intrinsic evidence demands that it should be construed broadly to read on a device generally. The ‘043 Patent clearly shows that OTI intended to encompass within the scope of the invention devices in a variety of formats, which may be standalone or integrated with other hardware, which may or may not be portable, not merely those in card format. (‘043 Patent, Col. 13, lines 30-37; Apsel Rpt. ¶¶51-54; Itay Dec. ¶¶19-21). Absent expressions of “manifest exclusion or restriction” that show clear disavowal of claim scope, the Court should not narrow the scope of claims to exclude contemplated embodiments of the invention. *Digital-Vending Serv. Int'l, LLC v. Univ. of*

Phoenix, Inc., 672 F.3d 1270, 1280 (Fed. Cir. 2012). T-Mobile has failed to satisfy the high standard for establishing such expressions of manifest exclusion or restriction that would amount to clear disavowal.

- a. The ‘043 Patent specification does not clearly disavow structures other than a card

Nothing in the specification indicates that the invention includes a card as a structural limitation. On the contrary, the specification shows that the inventors expressly contemplated data transaction devices in forms other than a card. (‘043 Patent Col. 13, lines 30-37). In fact, the term “smart card” as used in the industry is not limited to flat stiff pieces of material, but to secure elements in other forms, as well. (Itay Supp. Dec. ¶¶14, 15; Apsel Supp. Dec. ¶¶11-17). Nor is reference to the ISO 7816 standard in the ‘043 Patent limiting, since the standard has many sections that have nothing to do with the physical form of the element. (Itay Supp. Dec. ¶¶16-18). T-Mobile’s reliance is misplaced on *E-Pass Technologies, Inc. v. 3Com Corp.*, 473 F.3d 1213 (Fed. Cir. 2007) (Court interpreted “electronic multi-function card” in the context of a different patent).

Moreover, although some embodiments describe data transaction cards, the specification is clearly inclusive of all forms, and is “intended to describe the principal intended use of the invention, but not to import a structural limitation.” *Textron Innovations Inc. v. Am. Eurocopter Corp.*, 2011-1309, 2012 WL 3871717, at *5 (Fed. Cir. Sept. 7, 2012) (mentioning the use of replacement assemblies in the specification did not limit the preamble). Therefore, even if the preamble is limiting, it should be construed broadly to give full effect to the inventors’ purpose, which was to include devices other than flat rectangular pieces of plastic (as T-Mobile would interpret the term “card”). (Apsel Supp. Rpt. ¶¶11-15; Itay Supp. Dec. ¶¶ 14-18).

- b. OTI did not clearly disavow claim scope other than a card structure during prosecution

T-Mobile concludes, without explanation, that a change in the preamble language from “A data transaction device...” in the original filing to “A data transaction card...” in the September 22, 1999 Amendment demonstrates clear disavowal. However, T-Mobile cannot explain how the so-called amendment evinces intent to narrow the scope of the claim. On the contrary, as shown in OTI’s Opening Brief (pp. 13-14), the insertion of the word “card” during prosecution was an obvious typographical error.

As the Federal Circuit recently affirmed, clear disavowal requires far more than an applicant’s mere silence. *Textron*, 2012 WL 3871717, at *5 (where an application was silent as to why the term “replacement” was added to the preamble, the term did not exclude structurally identical devices installed as original equipment). OTI made no express statement showing intent to limit the claims, or to overcome the Examiner’s rejection based on the addition of the word “card.” This cannot be read as intending to limit the invention.

As further support for its argument that OTI relied on a card structure to obtain allowance of the ‘043 Patent, T-Mobile emphasizes a description of the prior art in statements accompanying the claim amendment. (T-Mobile’s Opening Brief, p. 14). But T-Mobile presents only a partial quote from the amendment, obscuring the fact that the statement described the prior art, not the invention of the ‘043 Patent. The full statement, reproduced below, indicates that OTI used “smart card” to refer to the prior art:

It is respectfully submitted that the Examiner misinterprets the claim because the invention as claimed resides not in the mere collocation of *common components which are admittedly to be found in all smart cards having both contact and contactless interfaces*, but rather in the fact that in the invention, no switching element is required for selecting whether contact or contactless

modes of operation are required. (September 22, 1999 Response to Office action, Remarks p. 2, Yonay Dec., Ex. 2C, emphasis added)

However, merely describing the prior art cannot be considered unambiguous disavowal of claim scope. *Grober v. Mako Products, Inc.*, 686 F.3d 1335, 1342-43 (Fed. Cir. 2012) (“[applicant’s] statements in reference to the prior art did not narrow the meaning of the patent”).

T-Mobile’s reliance on cases such as *Johnson & Johnston Assoc. Inc. v. R.E. Service Co., Inc.*, 285 F.3d 1046, 1054 (Fed. Cir. 2002), for the proposition that a specification that discloses but declines to claim subject matter dedicates the unclaimed subject matter to the public, is misplaced. (T-Mobile’s Opening Brief, p. 13). First, T-Mobile’s argument presupposes the conclusion that the claim should be read narrowly, rather than explains why a narrow interpretation is warranted. Second, the cases relate to determining whether the doctrine of equivalents can be used to find infringement, i.e., *after* the claims have been interpreted. *Johnson & Johnston*, 285 F.3d at 1054 (patentee cannot capture under the doctrine of equivalents a broader range of embodiments when the claim language clearly claims a subset of those embodiments). The so-called disclosure-dedication rule line of cases limits application of the doctrine of equivalents, but has no role in claim construction. See *Toro Co. v. White Consol. Indus., Inc.*, 383 F.3d 1326, 1333 (Fed. Cir. 2004) (explaining *Johnson & Johnston* in context of infringement under the doctrine of equivalents); *Zircon Corp. v. Stanley Black & Decker, Inc.*, 452 Fed. App’x 966, 978 (Fed. Cir., Oct. 5, 2011) (applying the rule only in the context of the doctrine of equivalents and not during review of claim construction issues).

Nothing in the specification or prosecution history here suggests an unequivocal intent by the inventors to limit claim scope to a card, either through language in the preamble or otherwise.

B. “*a semiconductor device for operating in said contact and contactless modes*”

T-Mobile’s arguments pertaining to interpretation of contact and contactless modes are bootstrapped based on its contention that the claims are limited to a card. However, once this presupposition falls away (as it must), there is no reason to limit these claim terms as proposed by T-Mobile.

1. “contact mode”

T-Mobile proposes that the claim term “contact mode” be interpreted as “a mode of operation wherein electrical contacts *on the card* directly and electrically contact *electrical contacts of a card reader* to effect data communication.” (T-Mobile Opening Br., pp. 15-17, emphasis added). This proposed interpretation unduly narrows the claim in at least two respects: (a) contacts must be on a card, and (b) they must connect with contacts of a card reader. However, there is no basis for implying a card structure – and a card reader – into the simple term “contact mode.” (Apsel Supp. Rpt. ¶¶16, 17).

T-Mobile fails to heed the starting point for claim construction: claims usually mean what they say. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005) (“the claims themselves provide substantial guidance as to the meaning of particular claim terms.”) The starting point should be that contact mode simply means a mode of operation in which contacts are used to communicate data. Instead, T-Mobile starts its analysis by citing to the *specification* to define contact mode based on embodiments of the invention, which purportedly “requir[e] the exposed electrical contacts on the card to make electrical contact with a card reader.” (T-Mobile Opening Brief, p. 15). However, nothing in the term “contact mode” necessitates T-Mobile’s limited interpretations.

As to the first issue (card), T-Mobile’s narrowing interpretation is improper for a number of reasons. *First*, T-Mobile improperly imported this limitation from the preamble, as discussed

at length above. *Second*, the body of the claim refers to “a *semiconductor device* for operating in contact and contactless modes,” not a card (‘043 Patent, Col. 13, lines 41-42). *Third*, nothing in the claim requires that contacts be on a card (as opposed to any other form of device) in order to make an electrical connection. In fact, as Dr. Apsel describes, contacts are used to make electrical contacts in many devices, not merely on cards. (Apsel Supp. Rpt. ¶¶22-26).

As to the second issue (card reader), T-Mobile’s narrowing interpretation is even more far-reaching. *First*, nowhere in the claim – not even in the preamble – is there any reference to a card reader. *Second*, because the claim refers to a *semiconductor device* for operating in contact and contactless modes, there is no implication that the semiconductor device is inserted into a card reader. (See Apsel Supp. Rpt. ¶10). *Third*, nothing in the claim requires that the contacts communicate with a card reader (as opposed to any other form of device). In fact, as Dr. Apsel describes in connection with the contact field, other types of devices may communicate using contacts, not merely card readers. (Apsel Supp. Rpt. ¶¶16-17, 22-26).

In short, although the specification describes embodiments in which data is transmitted between a card and a card reader, T-Mobile would have this Court commit error by reading the details of these embodiments into the claim. See *Phillips*, 415 F.3d at 1323 (“[A]lthough the specification often describes very specific embodiments of the invention, we have repeatedly warned against confining the claims to those embodiments.”)

OTI’s claim construction avoids these problems by giving the term “contact mode” its plain meaning in the context of the claim and the specification: a mode of operation in which [a] data is exchanged with the semiconductor device [b] via the contact field [c] using a contact data communications protocol. This gives full effect to the scope of the invention. *Medtronic Inc. v. Boston Scientific Corp.*, 695 F.3d 1266, 1275 (Fed. Cir. 2012) (adding a limitation to a claim

term “would only have been proper if the patentee specifically defined the terms to include that limitation, or disavowed their otherwise broad scope”).

2. “*contactless mode*”

T-Mobile proposes that the claim term “*contactless mode*” be interpreted as “a mode of operation wherein an antenna *in the card* effects contactless data communication with a remote reader.” (T-Mobile Opening Br. pp. 15-17, emphasis added). Again, T-Mobile proposes to unduly narrow the claim by requiring: (a) that the device be in the form of a card, and (b) that the antenna be in the card (rather than anywhere in the device, or simply operably connected to it). However, there is no basis for importing these limitations into the claim.

T-Mobile begins with the same flawed analysis method used to interpret “*contact mode*.” Rather than starting with the plain meaning of “*contactless mode*,” i.e., a mode of operation in which data is (at least partly) exchanged over a connection that does not involve contacts, T-Mobile begins by reading a specific embodiment “requiring an antenna inside the card” into the definition of *contactless mode*. (T-Mobile Opening Br. p. 15).

The first issue (card) has been discussed extensively, and need not be repeated. As to the second issue (antenna in the card), as described by Dr. Apsel, an antenna need not be *inside* the device in order to operate; this is mainly a packaging design choice. (Apsel Supp. Rpt. ¶¶18-19). In addition, the ‘043 Patent specifically contemplates an antenna external to a device. For example, Figures 11 and 12, together with the accompanying text (‘043 Patent, Col. 11, line 36 – Col. 12, line 48) discuss a configuration in which the antenna is remotely located with respect to the data transaction device:

FIG. 11 shows a third embodiment of the antenna interface 16 wherein no coil antenna 15 is connected to the coil connections 20 and 21 and there is connected a *remote coil antenna 75 which may be displaced a distance of several meters from the antenna interface 16*. (‘043 Patent, Col. 11, lines 36-49, emphasis added).

Referring finally to FIG. 12, there is shown a further modification to the embodiment shown in FIG. 11 wherein *again a remote antenna 75 is provided and no coil antenna 15 is connected to the coil connections 20 and 21...* ('043 Patent, Col. 12, lines 17-20, emphasis added).

In these devices, contactless mode is effected even though the antenna is located meters from the data transaction device, connected to it by wires. (Apsel Supp. Rpt. ¶20). There is no reason to believe that the inventors of the '043 Patent would have excluded the possibility of a remotely located antenna from the claims. *Verizon Serv. Corp. v. Vonage Holdings Corp.*, 503 F.3d 1295, 1305 (Fed. Cir. 2007) (“We normally do not interpret claim terms in a way that excludes disclosed examples in the specification.”); *Oatey Co. v. IPS Corp.*, 514 F.3d 1271, 1277 (Fed. Cir. 2008) (if “claims can reasonably [be] interpreted to include a specific embodiment, it is incorrect to construe the claims to exclude that embodiment, absent probative evidence on the contrary.”). T-Mobile’s definition of contactless mode would improperly exclude a card or other device with a remote antenna, as described in the '043 Patent specification.

3. *T-Mobile cannot limit the '043 Patent claims based on the prior art*

T-Mobile argues that the '043 Patent claims should be limited based on the prior art (Kreft) use of the terms “contact” and “contactless” modes, citing *Arthur A. Collins, Inc. v. Northern Telecom Ltd.*, 216 F.3d 1042, 1045 (Fed. Cir. 2000). However, as with any extrinsic evidence, prior art references (whether cited in the specification or not) cannot be used “to vary claim terms from how they are defined, even implicitly, in the specification or file history.” *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1584-85 (Fed. Cir. 1996). Further, “the construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction.” *Phillips*, 415 F.3d at 1316. Taking all the embodiments disclosed in the specification into consideration, it is clear

that T-Mobile's reliance on Kreft's definitions to interpret use of "contact" and "contactless" modes in the '043 Patent would improperly narrow the '043 Patent's broad application. In other words, the prior art cannot be used to limit "what the inventors actually invented and intended to envelop with the claim." *Id.*

C. "contact field"

T-Mobile proposes to limit "contact field" to mean "a plurality of contacts on which respective *card reader contacts can rest.*" (T-Mobile Opening Br. p. 19; emphasis added). That is, T-Mobile attempts to restrict the '043 Patent claim to devices in the form of a card, which are intended to be inserted into a card reader. Yet again, T-Mobile avoids the plain meaning of contact field (i.e., a field of contacts) in favor of a specific embodiment drawn from the specification.

In particular, T-Mobile refers to the mention in the specification of ISO 7816 as supporting the requirement that the contacts in a contact field must rest on respective card reader contacts. However, the specification clearly contemplates that data transfer in other protocols which may not operate with a card reader are applicable to the invention. ('043 Patent, Col. 13, lines 6-9: "Likewise, it will be appreciated that whilst in the preferred embodiment, data transfer is effected in contact mode using the ISO 7816 protocol, any other suitable protocol may be employed.") Moreover, reference to ISO 7816 in context makes clear that it refers to parts of the standard that deal with the communications protocol, not to those parts of the standard that refer to physical parameters. ('043 Patent, Col. 13, lines 6-9: "data transfer is effected in contact mode using the ISO 7816 protocol...")

In any event, claim 1 cannot be limited to ISO 7816, because doing so would render claim 24 redundant under the doctrine of claim differentiation. See *InterDigital Comm'c, LLC v.*

ITC, 690 F.3d 1318, 1324 (Fed. Cir. 2012) (“[t]he doctrine of claim differentiation is at its strongest in this type of case, where the limitation that is sought to be read into an independent claim already appears in a dependent claim.”) (citations and internal quotations omitted).

As Dr. Apsel discusses, contacts are used throughout microelectronics, and the term contact field does not require communication with a card reader. (Apsel Supp. Rpt. ¶¶22-26). Nothing in the ordinary meaning of the term contact field, the specification, or the file history, requires that the claim be limited to an embodiment in which the data transaction device communicates with a card reader.

D. *“allowing data transmission between the contacts and the semiconductor device in accordance with said contact data communications protocol only during said contact mode”*

T-Mobile’s proposed construction limits the claim to mean *preventing* data transmission between the contact field and the semiconductor device during contactless mode. (T-Mobile Opening Brief, page 23) (“data transmission is not permitted between the contacts and the semiconductor device during the contactless mode of operation of the card”). Another way of stating this proposed limitation is that the device cannot support simultaneous communication over contact and contactless channels. However, T-Mobile’s argument fails in at least two ways. *First*, T-Mobile erroneously relies on ambiguous statements in the prosecution history in ways that contradict the specification. *Second*, T-Mobile’s interpretation could render the invention inoperable.

1. *T-Mobile relies on ambiguous statements in the prosecution history*

T-Mobile cites nothing in the specification to support its construction that data transmission between the contact field and the semiconductor device is *prevented* during

contactless mode. In fact, there is no such disclosure in the specification. Instead, T-Mobile quotes from the file history, in which the applicants described the contacts as being “fixedly connected” to the semiconductor device during both contact and contactless modes. (Response to Office action, p. 2-3, Yonay Dec., Ex. 2C). In that context, the ‘043 Patent applicants stated that

However, the contacts perform on a selective basis, that is, only in the contact mode. (Response to Office action, p. 2, Yonay Dec., Ex. 2C).

Rather the presence of an electromagnetic field on the antenna coil automatically enables contactless operation of the smart card and, by the same token, disables the contact field – even though, in the invention, ***the contact field remains fixedly connected to the semiconductor chip.*** (Response to Office action, p. 3, Yonay Dec., Ex. 2C, ***bold*** emphasis in original, underline emphasis added)

T-Mobile interprets the above statements to mean that the contacts are active only in contact mode, and that they are disabled during contactless mode. Clearly, the focus of the distinction over Kreft was that in the ‘043 Patent, the contacts are fixedly connected, and in the Kreft ‘812 Patent, they are switched in and out of use. The statement that “the presence of an electromagnetic field on the antenna coil automatically... disables the contact field” is not the distinction over the Kreft ‘812 Patent.

First, since the Kreft ‘812 Patent discloses a switching element, the contacts of the Kreft ‘812 Patent can be said to be likewise selectively disconnected or disabled during contactless mode. Therefore, this would not have been a persuasive argument for distinction over the Kreft ‘812 Patent. (Apsel Supp. Rpt. ¶¶27-31). The statement and its significance in the prosecution history is at least ambiguous.

Second, it is not at all clear what part of the ‘043 Patent specification would accomplish the statement interpreted as T-Mobile proposes, i.e., what circuit would “not permit[]” data

transmission over the contacts in contactless mode. (Apsel Supp. Rpt. ¶¶30; Itay Supp. Dec. ¶21-24). When “the prosecution as a whole is considered,” especially with regards to the applicant’s other statements describing data transmission on the contacts, “the inventor’s response to the PTO is not as clear” as the specification. *Elbex Video, Ltd. v. Sensormatic Elecs. Corp.*, 508 F.3d 1366, 1372 (Fed. Cir. 2007) (statements in the prosecution history unsupported by the specification, do not “amount to a clear and unmistakable surrender of claim scope.”); see also *Lucent Tech., Inc., v. Gateway, Inc.*, 525 F.3d 1200, 1210-1211 (Fed. Cir. 2008) (declining to limit a term based on statements in the prosecution history distinguishing over the prior art, but not directed to defining the claim term at issue).

On the contrary, the specification and claims are clear that simultaneous operation of contact and contactless operation of the semiconductor device is not only possible, but in fact provides one of the benefits of the invention over the prior art:

It will be clear that the data card according to the invention differs over hitherto proposed data cards also in that, in the invention, *data may be present on the contact field even when data is present on the coil antenna*. In such a situation the microprocessor may be programmed to relate to the data on only one of the data lines or on *both data lines simultaneously* according to a predetermined protocol. (‘043 Patent, Col. 13, lines 22-29, emphasis added)

This feature is also recited in claim 25 (“wherein data may be present on the contact and contactless i/o ports simultaneously, and the semiconductor device is programmed to relate to the data on only one of the data lines or on both data lines simultaneously according to a predetermined protocol.”). Limiting claim 1 as proposed by T-Mobile would render claim 1 or claim 25 nonsensical, since a device that *prevents* data transmission between the contact field and the semiconductor device during contactless mode (T-Mobile’s interpretation of claim 1) cannot also be programmed to relate to the data on “both data lines simultaneously” (claim 25). See also, Itay Supp. Dec. ¶24).

Finally, in microelectronics, the principal mechanism for preventing transmission of a signal is by the use of a switch. (Apsel Supp. Rpt. ¶31). Therefore, T-Mobile's proposed claim interpretation, which would require *preventing* data transmission between the contact field and the semiconductor device, would seem to involve a switching element. (Apsel Supp. Rpt. ¶31). However, including a switch between the contacts and the microprocessor was disclosed by the Kreft prior art, and would have contradicted the invention of the '043 Patent, which involves eliminating the switching mechanism. (Apsel Supp. Rpt. ¶¶3-7, 29-31; Itay Supp. Dec. ¶26).

OTI's proposed interpretation takes into account the claim term, the specification, and the prosecution history, showing how this term is consistent with OTI's arguments to the USPTO (OTI Opening Br. pp. 17-20).

2. *T-Mobile's interpretation may render the invention inoperable*

It is unclear how T-Mobile believes the '043 Patent specification would accomplish disabling the contacts or the contact field during operation in contactless mode. (T-Mobile Opening Br. p. 23). However, disabling the contact field could render the invention inoperable. As shown in Fig. 2 of the '043 Patent, one of the contacts is a power supply to the semiconductor device (Vdd). During contactless mode, the semiconductor device may be powered by voltage to that contact from the antenna interface:

The contact C1 is connected to the voltage supply input Vdd of the microprocessor 14 which has a pair of i/o ports IO1 and IO2 connected to the contacts C7 and C4, respectively, in the contact field 11... (Col. 4, lines 36-39, emphasis added).

Coupled across the AC voltage rails 35 and 36 is a bridge rectifier 37 whose negative output is connected to GND and whose positive output is connected to the high DC voltage terminal 22 so that *when the data transaction card 10 is in contactless mode and a sufficiently strong electromagnetic field is induced across the coil antenna 15, a sufficiently high DC voltage level is produced by the bridge rectifier 37 for supplying power to the microprocessor 14 in*

parallel with the contact C1 in the contact field 11. (Col. 5, lines 6-14, emphasis added)

If the contact field were to be disabled or disconnected from the semiconductor device during contactless mode, the antenna interface could not supply power to the semiconductor device, and the semiconductor device could not function. (Apsel Supp. Rpt. ¶32; Itay Supp. Dec. ¶25). T-Mobile's interpretation, which would seem to require disabling the contact field, cannot be correct, since it renders the invention inoperable. *Elbex*, at 1373 (claim construction in accordance with an incorrect statement in the prosecution history was rejected where it would have rendered invention inoperable). See also *Cordis Corp. v. Medtronic Ave, Inc.*, 511 F.3d 1157, 1174 (Fed.Cir. 2008) (noting that “a construction that renders the claimed invention inoperable should be viewed with extreme skepticism”); *Broadcom Corp. v. Qualcomm Inc.*, 543 F.3d 683, 691-692 (Fed. Cir. 2008) (where the intrinsic evidence was inconsistent as to the definition of “simultaneous participation,” the court rejected a construction that could mean that the patent would not perform its stated function).

E. “*at least some*”

T-Mobile proposes to interpret “an antenna interface coupled... to at least some of the contacts in the contact field” to include connecting the antenna interface to only a single contact in the contact field. However, for the reasons discussed in OTI’s opening brief (pp. 23-24), connecting to only one contact would render the invention inoperable, since the antenna interface could not provide power to the microprocessor over a single connection. (Apsel Rpt. ¶¶88-92). OTI’s interpretation, which takes into consideration the plain meaning of the word “some” as well as the claims and specification, is therefore the correct one.

III. CONCLUSION

For the above reasons, T-Mobile's proposed claim interpretations are unduly limiting and not in accordance with principles of claim construction.

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PEARL COHEN ZEDEK LATZER LLP

By: /s/ Guy Yonay
Guy Yonay (GY-3028)
GuyY@pczlaw.com
Clyde A. Shuman (CS-6351)
ClydeS@pczlaw.com
1500 Broadway, 12th Floor
New York, NY 10036
Tel: (646)878-0800
Fax: (646)878-0801

*Attorneys for Plaintiff-Counterclaim Defendant
On Track Innovations, Ltd.,*

OF COUNSEL:

Sibley P. Reppert
PEARL COHEN ZEDEK LATZER LLP
50 Congress Street, Suite 640
Boston, MA 02109
(617) 228-5725
SibleyR@pczlaw.com

CERTIFICATE OF SERVICE

I certify that on January 18, 2013, I served the foregoing ON TRACK INNOVATION'S RESPONSIVE BRIEF IN OPPOSITION TO T-MOBILE'S OPENING CLAIM CONSTRUCTION BRIEF, as well as the SUPPLEMENTAL EXPERT REPORT OF DR. ALYSSA APSEL ON THE CLAIM CONSTRUCTION OF U.S. PATENT NO. 6,045,043; and SUPPLEMENTAL DECLARATION OF NEHEMYA ITAY IN RESPONSE TO T-MOBILE'S CLAIM CONSTRUCTION OF U.S. PATENT NO. 6,045,043 on Counsel for Defendant-Counterclaim Plaintiff T-Mobile USA, Inc. by sending a copy via email (by consent) to counsel of record addressed as follows:

Eric J. Lobenfeld (eric.lobenfeld@hoganlovells.com)
Ira J. Schaefer (ira.schaefer@hoganlovells.com)
Robert R. L. Kohse (robert.kohse@hoganlovells.com)

Hogan Lovells US LLP
875 Third Avenue
New York, NY 10022
Tel: (212) 918-3000
Fax: (212) 918-3100

/s/ Guy Yonay
Guy Yonay